FORENSIC SCIENTIST III (DNA)
CS-401-13

INTRODUCTION

This position is located in the Department of Forensic Sciences (DFS). The mission of the DFS is to provide high-quality, timely, accurate, and reliable forensic science services using best practices and best available technology, focusing on unbiased science and transparency, to enhance public safety and health.

DFS is a data-driven agency with multiple data systems that are leveraged for accurate reporting and management processes, which requires responsibilities for all aspects of developing and implementing technology initiatives and promote innovations, improvements and effectiveness these processes. The position supervises all aspects of technology in positioning DFS as a national leader in technology; and works in conjunction with the laboratory managers to ensure that technology aligns with departmental goals and services by utilizing laboratory.

The position ensures the technical aspects of the DNA Analysis program(s) in compliance with the Quality Assurance Standards for Forensic DNA Testing Laboratories established by the Federal Bureau of Investigation (FBI).

MAJOR DUTIES

Ensures methodologies and procedures used are compliant with established standards, and is responsible for quality assurance and accreditation compliance activities.

Evaluates existing DNA methods and assists with proposing new analytical procedures; and ensures that all associated quality standards pertaining to ASCLD/LAB-International 17025-based accreditation status are being performed.

Prepares written scientific examination reports using symbols to correlate with laboratory results; inspects equipment and tools that are utilized for testing and to determine if the they are compliant with prescribed operating and safety standards, regulations and guidelines including manufacturer's specifications on computerized scientific equipment; interprets graphs, charts, and mathematical formulas.

Completes advance research project, and performs biology/DNA analyses on physical evidence; interprets test results and develops conclusions and prepares final reports/results.

Modifies or adapts standard processes and procedures, assesses, selects, and applies remedies suited to the assigned problem or situation; and assesses the impact of the same.

Keeps up-to-date of current literature and sources of information in the field of forensics for DNA methods, including but not limited to all forms of microscopy, chemical analysis, etc.

Modifies processes to resolve novel, obscure, or highly controversial problems that affect the analysis.

Prepares evidence for presentation in court; meet with attorneys, investigators or other law enforcement personnel regarding the interpretation of examinations conducted; testify as an expert witness in court and projects a professional image while representing the Department; exemplify the Department values, both on and off duty.

Testifies in court as an expert witness in legal proceedings and in connection with the DNA collected, processed, developed and preserved.

Performs examinations by reviewing submission reports received from law enforcement agencies and analyzing evidence for possible recovery of data.

Writes detailed reports of final analysis and results including inventory of DNA examined and submits reports to the appropriate investigative agency and/or authority or collaboratively with other employees.

Exercises discretion and sound judgment to determine proper courses of action and assesses and evaluates a variety of situations, problems, conditions or questions.

Performs research to determine new and/or revise methods for performing analyses or to determine the effectiveness of current analytical methods.

Works collaboratively with investigators and other members of the justice system to analyze and interpret DNA evidence and information that is necessary to meet the objectives of the investigation.

Assists with developing new standards and with identifying training needs and resource requirements for the organization.

Performs other related duties as assigned.

KNOWLEDGE REQUIRED BY THE POSITION

Master Knowledge of DNA, forensic laboratory accreditation, standards, and guidelines; extensive knowledge of the tools necessary to evaluate forensic quality processes; and the ability to establish new standards and assist with identifying training needs and resource requirements for the agency.

Mastery of the principles of chemistry, physics, biology, physiology, and mathematics/statistics as they relate to forensic science and to analytical laboratory work.

Mastery of and skill in applying DNA analysis principles and evaluative methods, techniques, theories, to conduct in-depth research of operational/program issues; prepare clear in-depth reports of studies and recommendations; and ability to apply Federal, state and local laws, codes and regulations pertaining to forensic science and DNA.

Mastery of forensic laboratory accreditation, standards, and guidelines; and of the tools necessary to evaluate the DNA evidence.

Mastery of new analytical developments, and ability to modify processes to resolve novel, obscure, or highly controversial problems that affect the analysis.

Mastery research skills, interpretation, and application of a broad range of qualitative and quantitative data using a variety of diverse methods.

Expert knowledge of quality assurance and quality improvement methods and techniques; and knowledge of accreditation standards and quality processing methods that are crucial as well as beneficial to the quality assurance program.

Expert knowledge of DNA evidence, preservation and chain of custody laws, rules, policies and procedures to ensure evidence integrity, and expertise of safety practices and procedures as they apply to analyses in the laboratory; and knowledge of the rules of evidence and methods used in presenting evidence in court.

Ability to work well both independently and as part of a professional management team in a multi-cultural workplace and interpersonal skills is required to work effectively with a diverse staff, external agencies, and the public; and the ability to work safely without presenting a threat to self and others is essential..

Excellent oral and written communications skills sufficient to prepare and present pertinent information and research involving complex policies and initiatives, and to effectively represent the agency at conferences, meetings and consultations with agency managers, employee groups, and special interest groups concerning program objectives and issues and public relations; and ability research complex forensic examinations.

Demonstrated skill and ability to use a PC and software packages (e.g., Microsoft Word, Excel, Access and Power Point, etc.) and software applicable to various reporting systems, particularly laboratory information management systems (LIMS), inventory control, and NIBIN software.

Ability to testify effectively in court as an expert witness in legal proceedings.

SUPERVISORY CONTROLS

Works under the Unit Manager, who provides administrative direction in terms of techniques, desired results, changes in regulatory constraints and, or methods and procedures that may apply to complex situations. Determines the validity of test methods and results and recommends acceptance or rejection of evidence items. Consults with supervisor on unusual technical problems, best practices, and keeps the supervisor apprised of any controversial issues.

Completed assignments are reviewed for conformance to guidelines, deadlines, and expected results and adherence to requirements.

GUIDELINES

Guidelines include policies and procedures of DFS, including but not limited to the standard operating procedures developed by the DNA Unit through the validation of analytical procedures; governing laws and regulations of the District and Federal government, Mayor's Orders, instructions, and the Deputy Mayor's policy and priorities. Incumbent exercises sound judgment in choosing, interpreting, or adapting available standards and guidelines to specific issues or subject. Many situations are not covered by the guidelines, and therefore, require interpretation and adaptation.

Sound judgment is exercised when selecting, interpreting, or adapting available standards and guidelines to specific work situations and/or cases, however, many situations are not covered by the guidelines, and therefore, requires extensive interpretation and adaptation or research.

COMPLEXITY

Adaptability and flexibility is required in order to adhere to protocol is essential; develops and validates criteria for testing parameters with new methods and equipment as well as assisting with training team members to perform the same. Maintains quality control measures and prepares detailed documentation of test results. Provides appropriate knowledge in the application of procedures; and identifies problems and anticipates discrepancies in the results. The work requires assessing, evaluating, modifying and adapting various methods to satisfy requirements and to arrive at sound conclusions.

Decisions regarding what needs to be done include major areas of uncertainty in approach, methodology, or interpretation and evaluation processes that result from such elements as continuing changes in program, technological developments, unknown phenomena, or conflicting requirements.

SCOPE AND EFFECT

The work involves performing on special assignment by isolating and defining unknown conditions, resolving critical problems, or developing new theories, technical adequacy of DNA analysis. Conducts and assists other staff members when required to perform analysis including collecting appropriate exhibits to prepare for examination/testing; and prepares documentation regarding findings and analysis that are instrumental in preparing results of the tests; and identifying problems that may alter the findings; and ensures that all documentation is in the appropriate order for court cases and/or final discovery.

The results of the work may affect other experts and/or the department's credibility adequacy, accuracy and effectiveness of the field investigations, and laboratory tests, and ensures its relevancy to each to assist with appropriate closure. The results are also binding and affect judicial proceedings.

PERSONAL CONTACTS

Contacts are with DFS officials, employees, laboratory personnel, consultants, Federal and District regulatory agencies, the general public, law enforcement, and investigators, and other stakeholders.

PURPOSE OF CONTACTS

Contacts are for the purpose of influencing and motiving persons or groups in order to obtain the desired effect, such as gaining compliance with established policies and regulations by persuasion or exchanging and gathering information, ensuring the orderly flow of work as it pertains to maintaining the chain-of-custody of collected evidence, and storage, and to prepare detailed reports.

PHYSICAL DEMANDS

Work is sedentary, however, some work requires periods of walking, standing, bending, stretching etc. Also, some work requires sufficient personal agility to possibly collect and process evidence at a variety of crime scenes. The incumbent may occasionally carry items weighing up to 50 pounds, such as bags and/or boxes of evidence, portable computers, peripherals, and other similar materials and must possess sufficient manual dexterity to manipulate and operate laboratory equipment; must be able to visually distinguish color, shape, size, number and picture resolution quality; and must be able to withstand exposure to disagreeable elements such as malodorous and/or decomposing samples/bodies, blood, bodily fluids, etc., that may pose a health risk.

WORK ENVIRONMENT

The work is performed in an office and laboratory. The office setting is when preparing documentation, and the laboratory setting is during the testing and analysis phase.

The incumbent may be exposed to hazardous materials, toxic substances, blood borne pathogens, and electric current and electrostatic discharge and is required to follow safe laboratory practices and wear protective clothing, including facial masks, safety glasses, gloves, ear protection, etc.

OTHER SIGNIFICANT FACTS

Employees are assigned to this position after several years of relevant experience in forensic DNA analysis or equivalent work in the fields of biology, biochemistry, molecular biology, genetics, genomics, or similar forensic fields.

The nature of the work in the DNA Unit requires the safe handling and processing of firearms within the unit and standard firearms safety processes must be constantly demonstrated and reinforced.

May be required to work weekends and holidays.

SPECIAL REQUIREMENTS

This position's duty station will be housed within the Consolidated Forensic Laboratory (CFL) which is a protection-sensitive facility. As such, incumbents of this position shall be subject to criminal background checks, background investigations, and mandatory drug and alcohol testing, as applicable. Due to the handling of primary evidence, the applicant will be required to submit a buccal swab for the purposes of the DNA Quality Control database for the DFS.

The nature of the DFS mission necessarily involves the potential risks associated with biological or chemical hazards, including morgue functions. Although contact with these functions is intended to be minimal, the risks are nevertheless possible; training to recognize, address, and mitigate these risks is required as is dealing with potentially personally difficult topics, such as crime, death, and disease.